

FACTSHEET

Veterinary Services

United States
Department of
Agriculture

Animal and
Plant Health
Inspection
Service

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West Nile Virus

West Nile is a type of virus that causes encephalitis, or inflammation of the brain. The virus has been found in Africa, western Asia, the Middle East, and the Mediterranean region of Europe.

The virus is transmitted by mosquitos that acquire it from infected birds. There is no documentation that infected horses can spread the virus to uninfected horses or other animals. Migrating birds may play a role in spreading the disease.

Clinical signs of West Nile virus in horses may include depression, listlessness, stumbling and incoordination, weakness of limbs, ataxia, convulsions, circling, hyperexcitability, partial paralysis, coma, or death. Fever may or may not be present.

West Nile Virus in the United States

On September 14, 1999, the National Veterinary Services Laboratories (NVSL) of the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) isolated a virus from neurological and other tissues of flamingos and trogons (pheasants) from the Bronx Zoo and crows from the New York City area.

Samples of the isolated virus were sent to the Department of Health and Human Services' Centers for Disease Control and Prevention (CDC) for identification. On September 27, CDC officials announced that the isolated virus was very similar to that of the West Nile virus, a disease previously unseen in the Western Hemisphere. CDC connected this disease to an encephalitis outbreak that has killed 6 people and infected at least 55 others in the New York City area. It has also been identified in crows and wild birds in Connecticut and New Jersey.

Because this virus is transmitted by mosquitoes, it has the potential to affect livestock and poultry. In the Riverhead area of Long Island, NY, a reported 22

horses have shown signs of possible encephalitis. Of the 22 horses in Riverhead, 9 have died or been euthanized. The others recovered. West Nile virus was positively identified as the cause of the infection.

The role of commercial poultry in maintaining or transmitting the virus is not thoroughly understood. According to scientific literature, chickens can develop a short-lived though not deadly infection, but clinical signs are not seen.

Federal Actions to Protect Agriculture

Any horses showing clinical signs within the three currently affected States or in any other States, will be investigated by APHIS' Veterinary Services (VS) program as a potential foreign animal disease. VS will be on the lookout for West Nile virus activity along the Atlantic seaboard. VS is also developing a diagnostic test for the virus and a surveillance program for horses.

USDA's Agricultural Research Service will conduct inoculation studies with turkeys. NVSL will do the same with chickens. NVSL's Foreign Animal Disease Diagnostic Laboratories will conduct studies with horses as well.

Although no clinical signs of the virus have been reported in U.S. poultry, VS will treat all situations, where birds show neurological signs, as a potential for foreign animal disease. This will allow NVSL to rule out exotic poultry diseases, such as Newcastle disease and highly pathogenic avian influenza, before testing for West Nile. If NVSL suspects West Nile virus from a poultry sample, they will forward the sample to CDC for confirmation.

The CDC, the U.S. Geological Survey's National Wildlife Health Laboratory, and USDA are cooperating to survey for the virus in a wide range of wild birds. This Federal working group, in conjunction with relevant State agencies, will gather and analyze surveillance data to define the extent to which the virus is distributed in mosquito and bird populations outside the affected area.

How You Can Protect Your Animals

You can decrease the chances of your animals being exposed to the virus. Preventing exposure of animals to mosquitoes is essential. Horses should be stabled inside during peak mosquito feeding times (dusk and dawn). Insect repellents are recommended.

No vaccine or treatment is available for the virus. Because mosquito numbers and activity are declining due to decreasing temperatures, we expect virus transmission to decline as well.

Additional Information

For more information about West Nile virus, contact

USDA, APHIS, Veterinary Services
4700 River Road, Unit 41
Riverdale, MD 20737-1231
Phone: (301) 734-8073
Fax: (301) 734-7817

For more information about human health issues related to West Nile virus, contact the New York State Health Department at (800) 926-7366 or check the CDC Website (www.cdc.gov).

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